



MIGHTY EDUCATION PROGRAMME

4. LESSON PRESENTATION
TOOLKIT 1: MIGHTY ME
ALL ABOUT ORGANS

FULL VERSION

IN PARTNERSHIP WITH



ONASSIS
FOUNDATION



Canadian
Blood
Services
BLOOD
PLASMA
STEM CELLS
ORGANS
& TISSUES

Organ Donation
Northern Ireland



Public Health
Agency

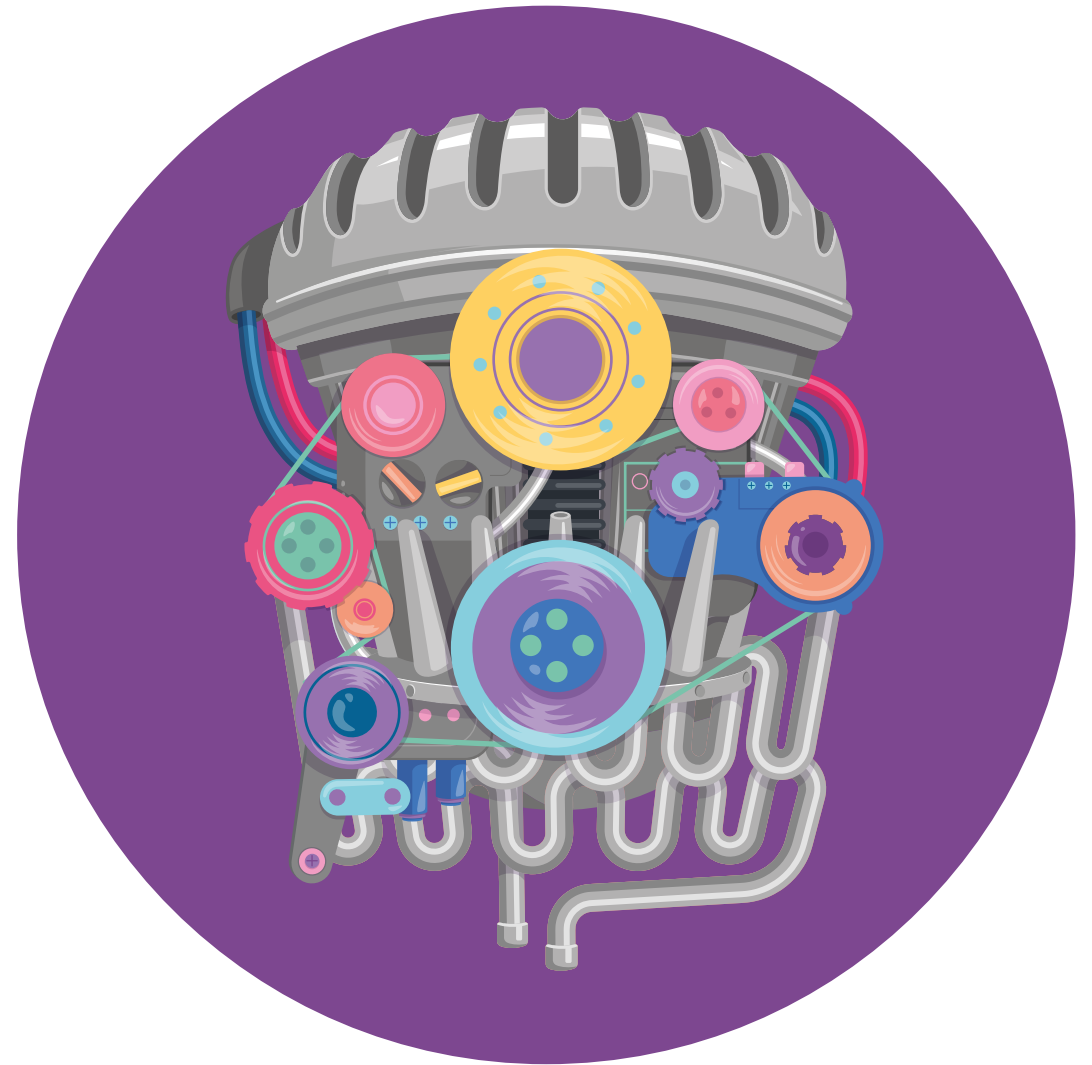


If you had a fancy car you wanted to take good care of, you'd first need to work out what's going on under its bonnet...

Our bodies are a bit like that too.

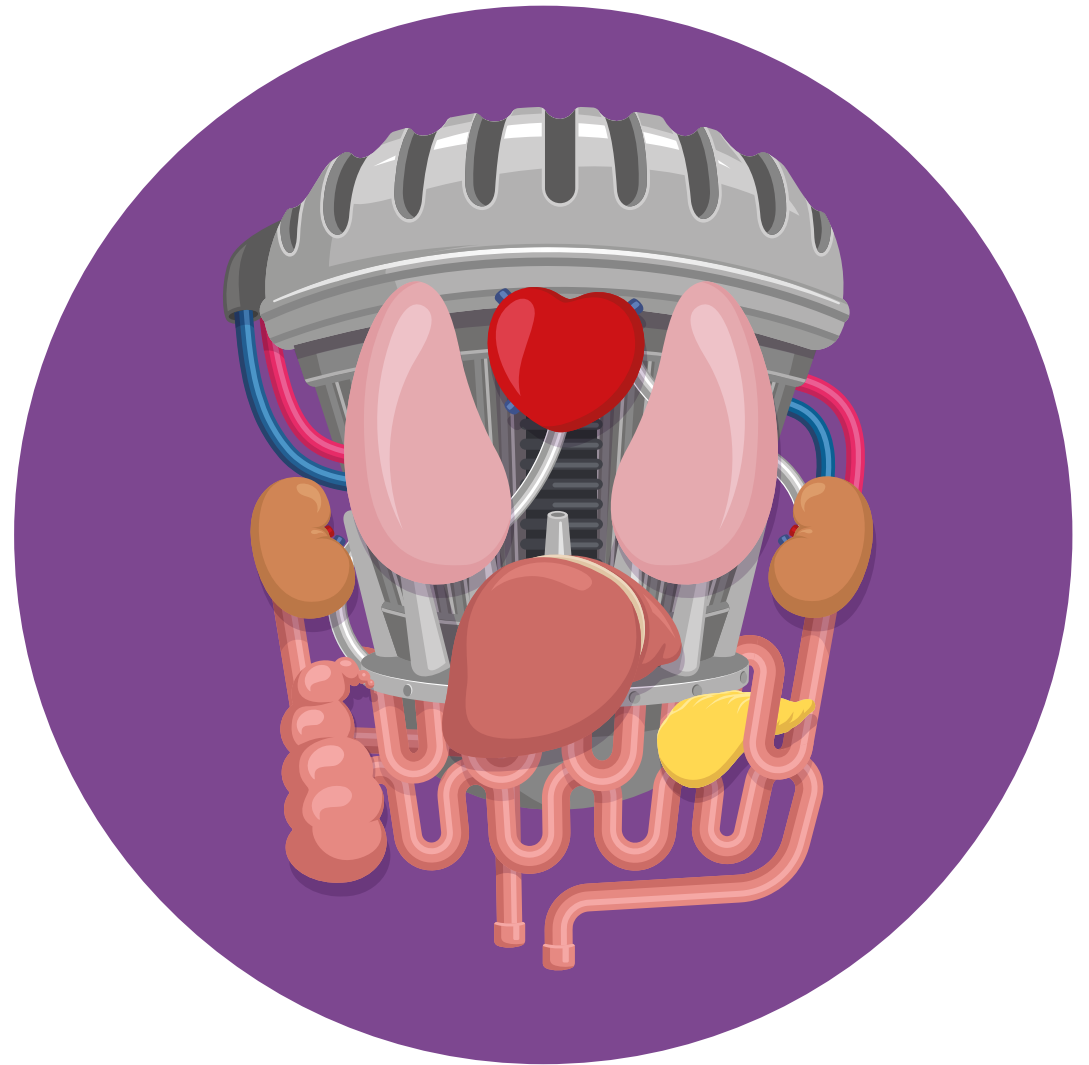
If we want to take good care of ourselves, we first need to take a good look under the hood and find out just how mighty we are on the inside!

Let's go!



Let's get to know our organs!

Just like a car's engine has different parts that make it work, our bodies are made up of lots of parts called organs, and each one has its own super important job to do to keep our bodies running smoothly!



Can you guess how many organs you have?

Is it 28, 58 or 78?



Did you guess right?



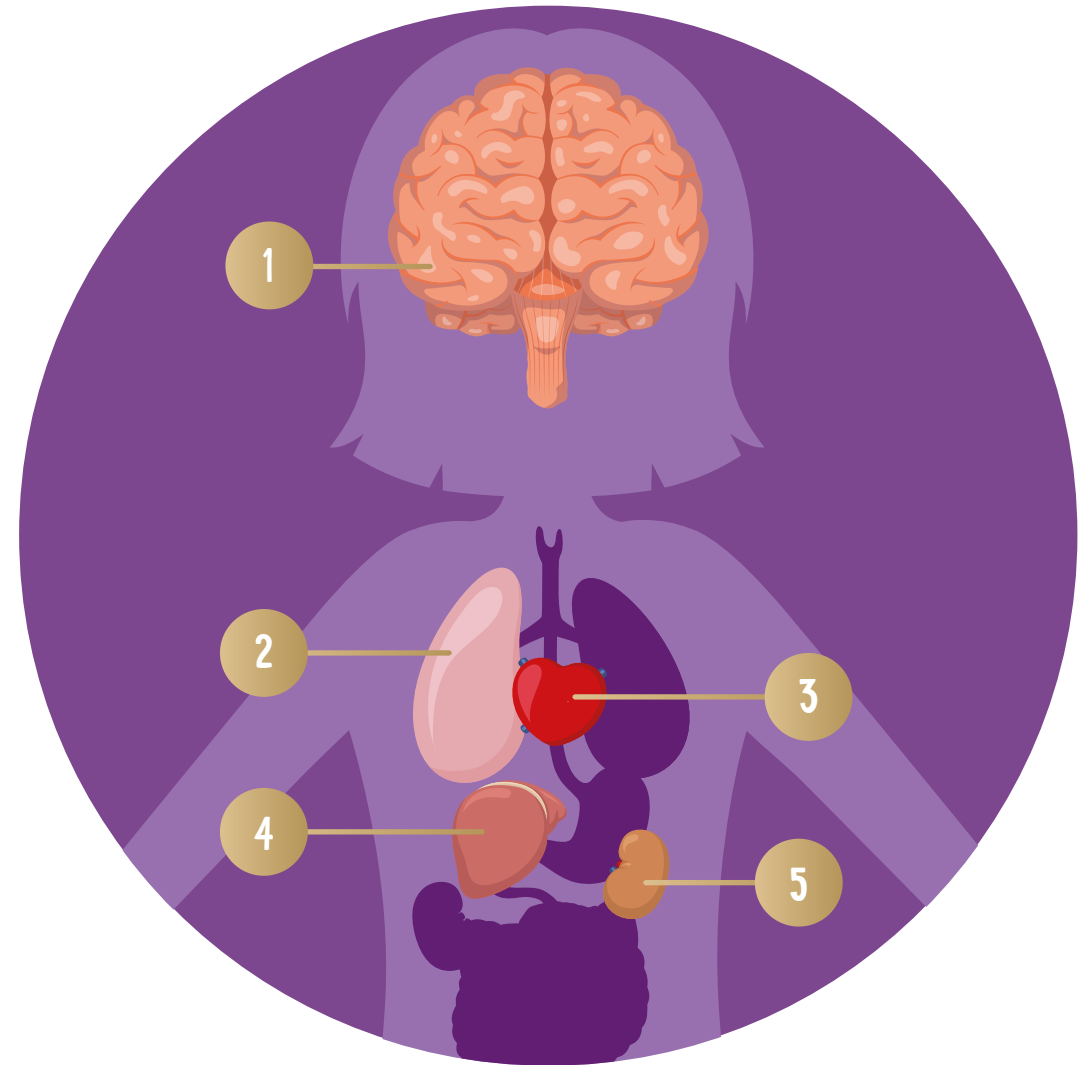
There are five organs we really can't live without.

Do you know what they're called?



They are our vital organs:

1. Brain
2. At least one lung
3. Heart
4. Liver
5. At least one kidney



Did you know?

There's another group of organs that are not only important but moveable too!

Do you know what they're called?



They're called the mighty organs (also known as the Organites)...

The mighty organs are:

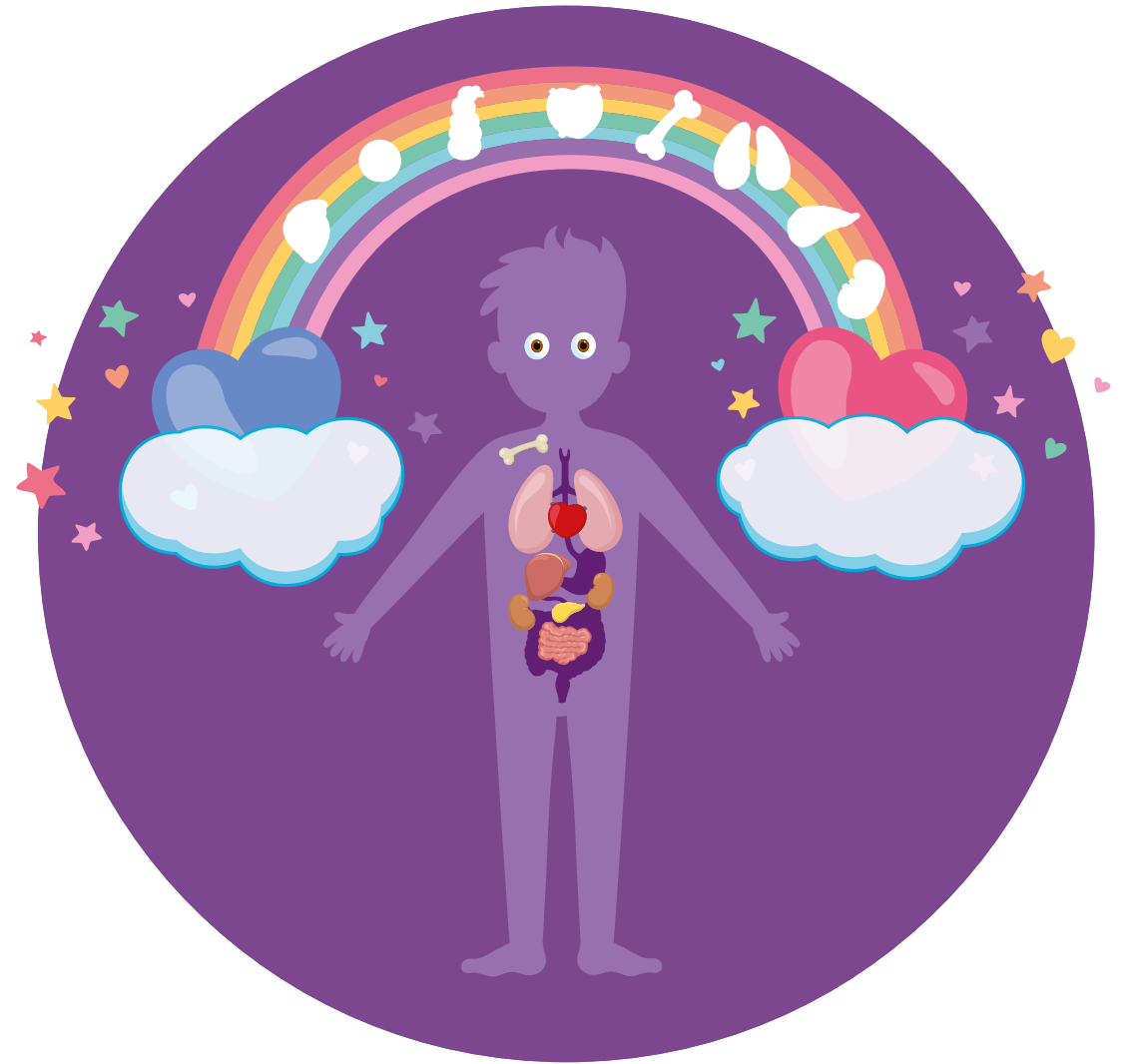
- Bone (Captain Marrow)
- Heart
- Liver
- Kidney
- Lungs (Left & Right)
- Eye (Cornea & Sclera)
- Small Bowel (or Small Intestine)
- Pancreas



These are the organs most needed for organ donations and transplantations

This means that if a person's mighty organs stop working or aren't working well, they can be replaced with new ones from another person (called an **organ donor**).

The operation that makes this possible is called an **organ transplant**.



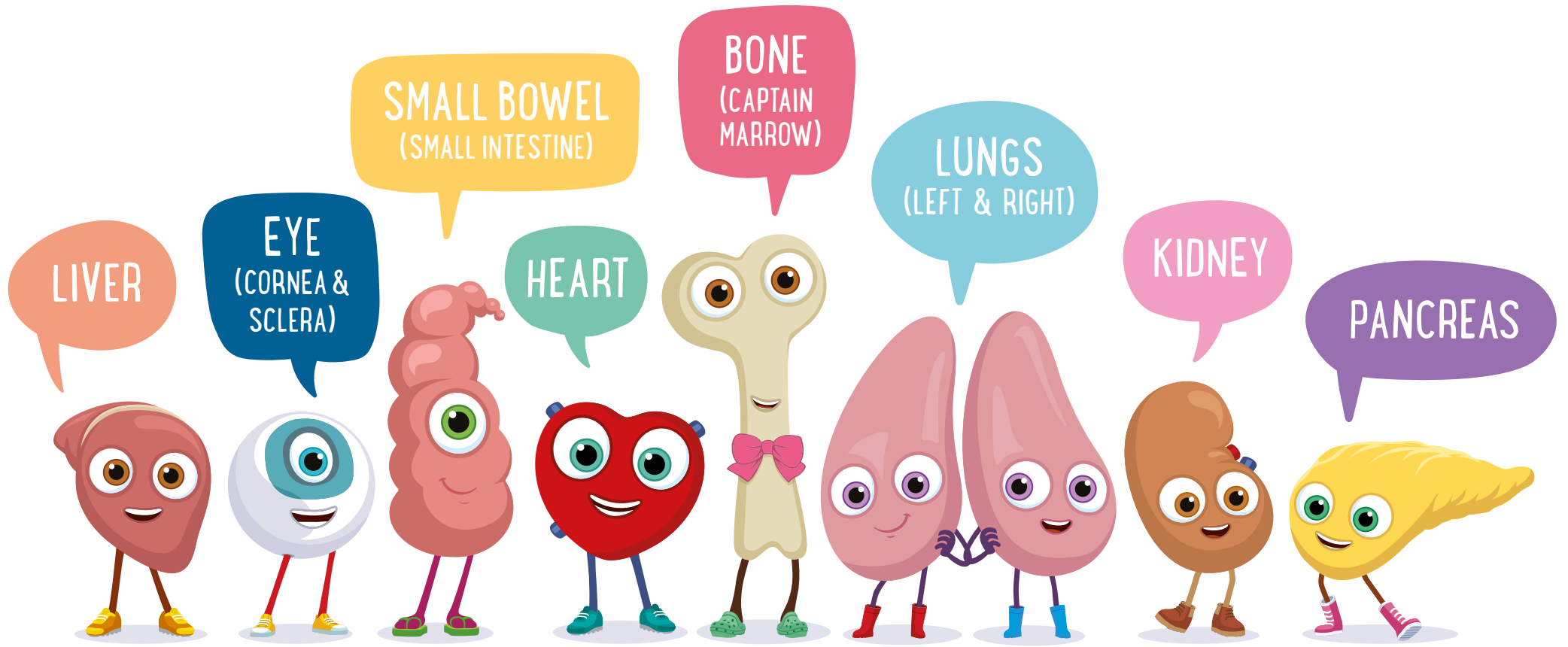
Did you know?

There are around 8,000 people on the organ transplant waiting list in South Africa right now!

One organ donor can save up to nine lives and improve the lives of many more!



Let's meet our mighty organs...

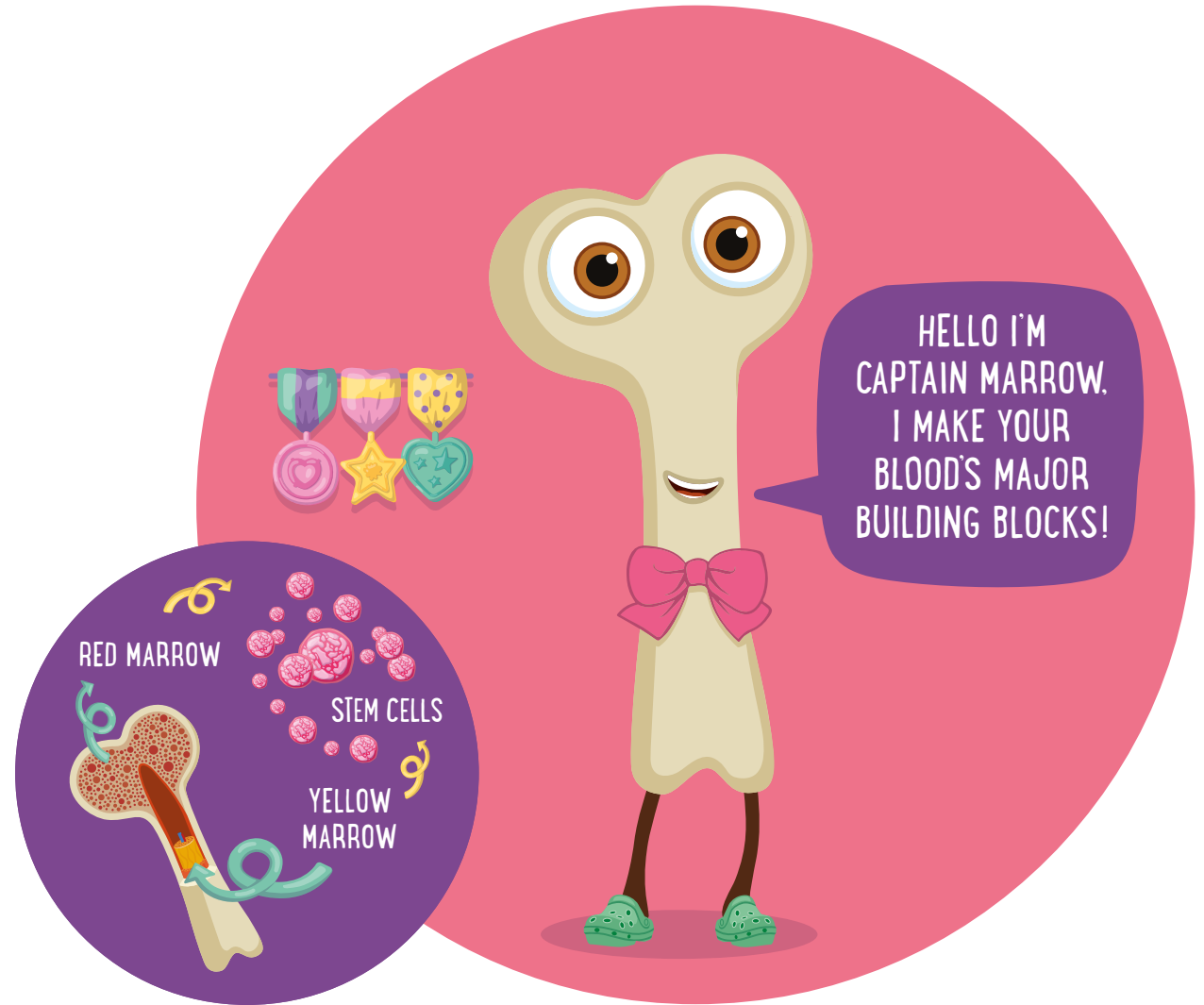


Meet Captain Marrow!

Captain Marrow is the leader of the Mighty Team.

His main job is to make the stem cells you need to survive—about 500 billion new ones every day!

Bone marrow is a thick, spongy kind of jelly in the middle of most of your bones.

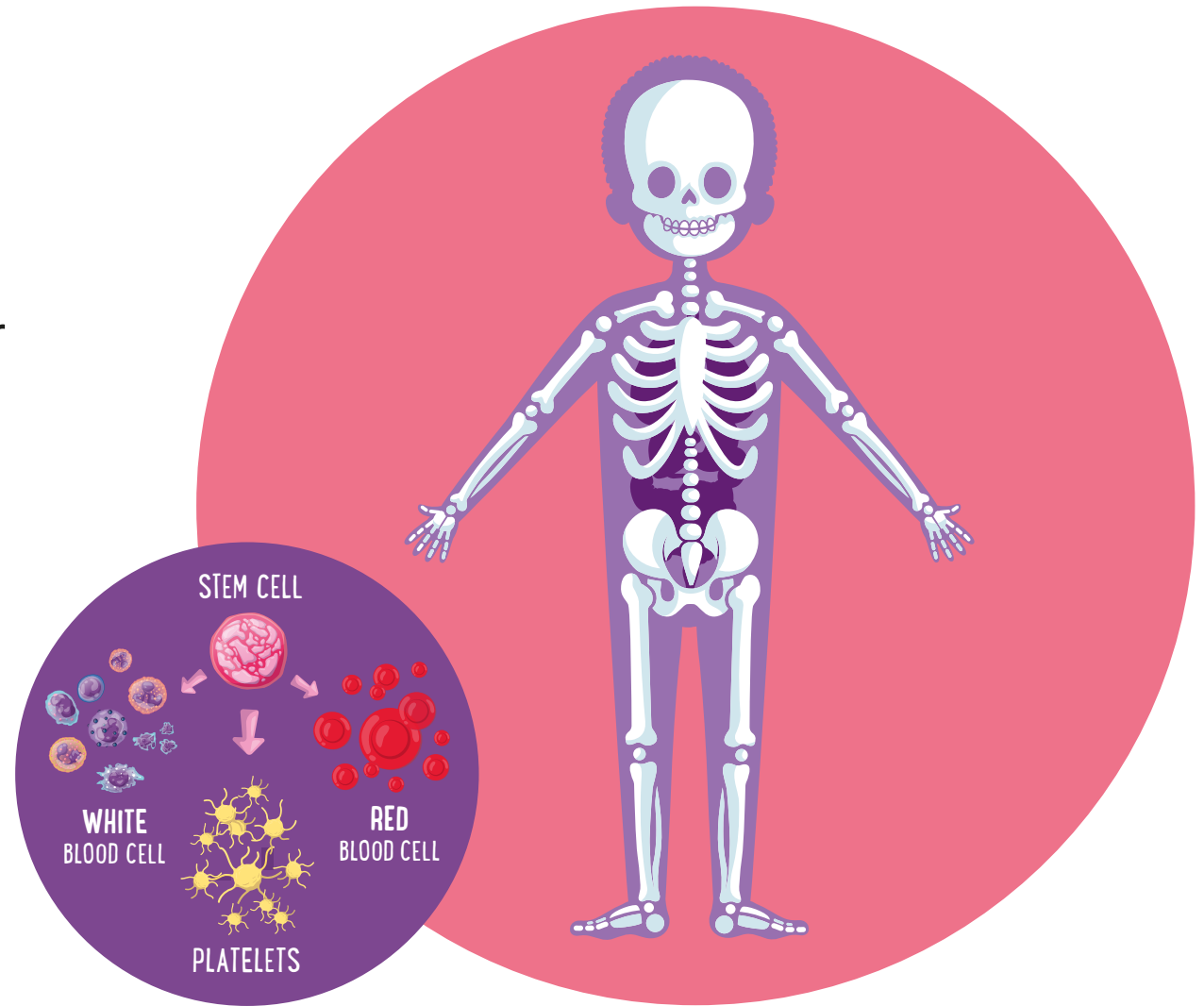


Where is Captain Marrow?

Your bones can be found throughout your body, they hold us up and give your body its shape.

Bone marrow makes stem cells.

These are the special cells that make all the other cells in you!



Did you know?

You can be a superhero!

Healthy grown-ups can save lives by donating their stem cells to those who really need them.

Top Tip:

To look after your mighty marrow—keep exercising, eat well, and make sure you get enough vitamins and minerals too!

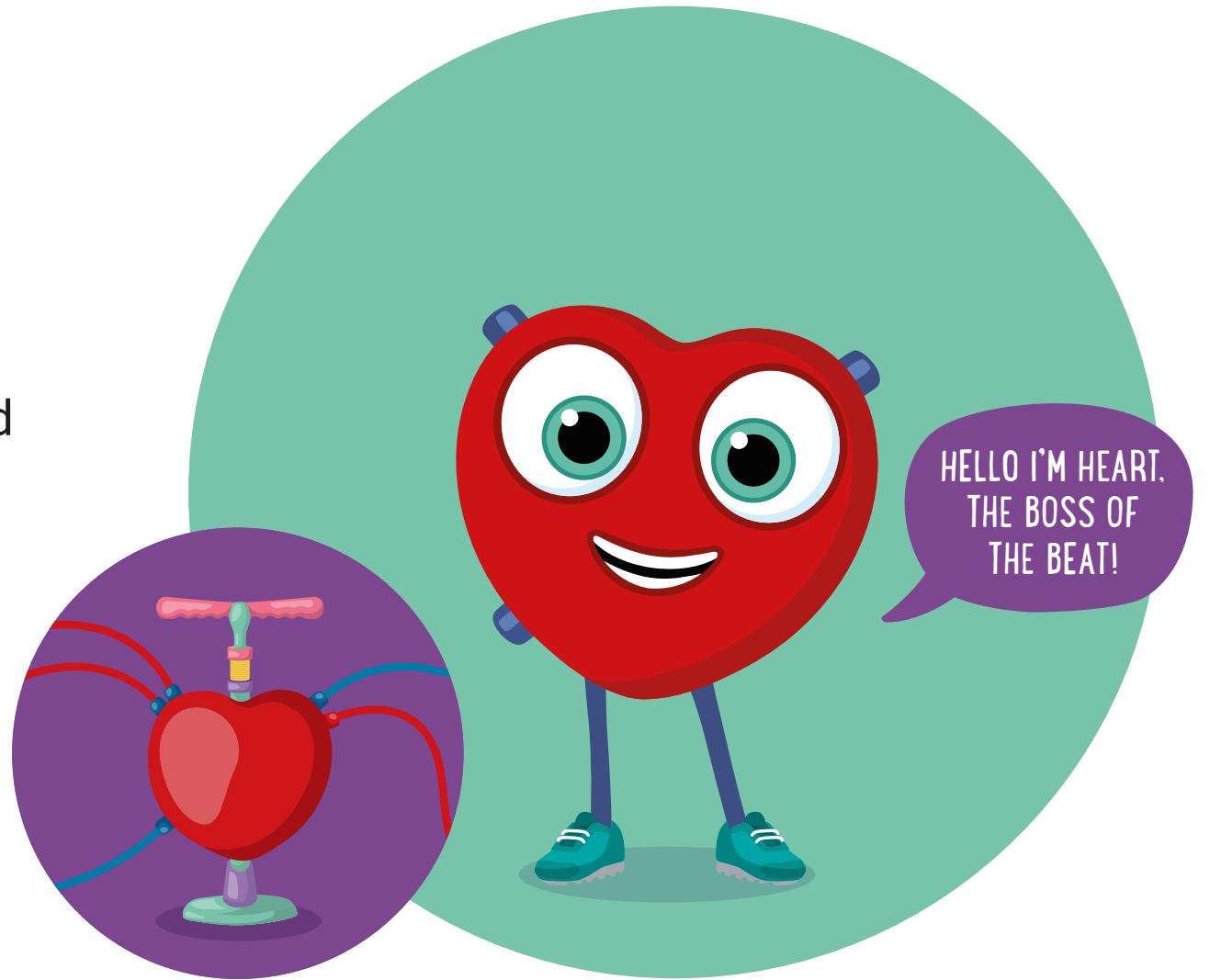


Meet Heart!

Say hello to the hardest working mighty organ in your body!

Whether you're awake or asleep, your heart never stops pumping blood around your body.

Put a hand on your heart right now.
Can you feel the beat?

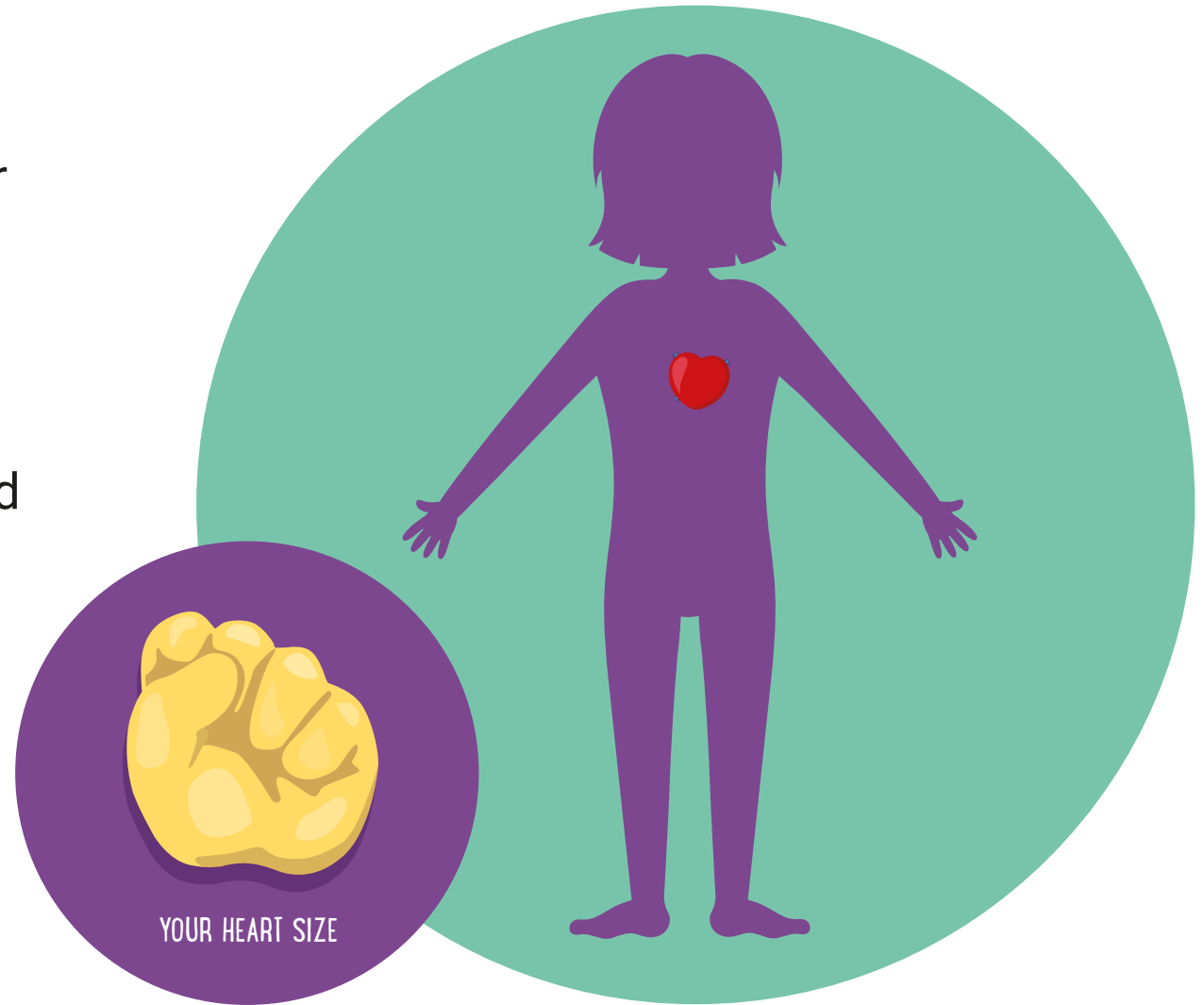


Where is Heart?

Found just behind and to the left of your sternum, your heart is about the size of your clenched fist.

It pumps blood filled with oxygen and nutrients through a maze of tubes called arteries and veins.

These extend to every organ and cell in your body!



Did you know?

The beat goes on and on and on!

Your heart beats around 100,000 times every day and around three billion times in a lifetime!

Top Tip:

Up those beats! Regular exercise is the best thing you can do to take care of your heart and keep it beating stronger for longer.



Meet the Lungs!

Say hello to your breathing buddies...

When you inhale (breathe in), your lungs take oxygen from the air and move it into your bloodstream (which takes it to every cell in your body).

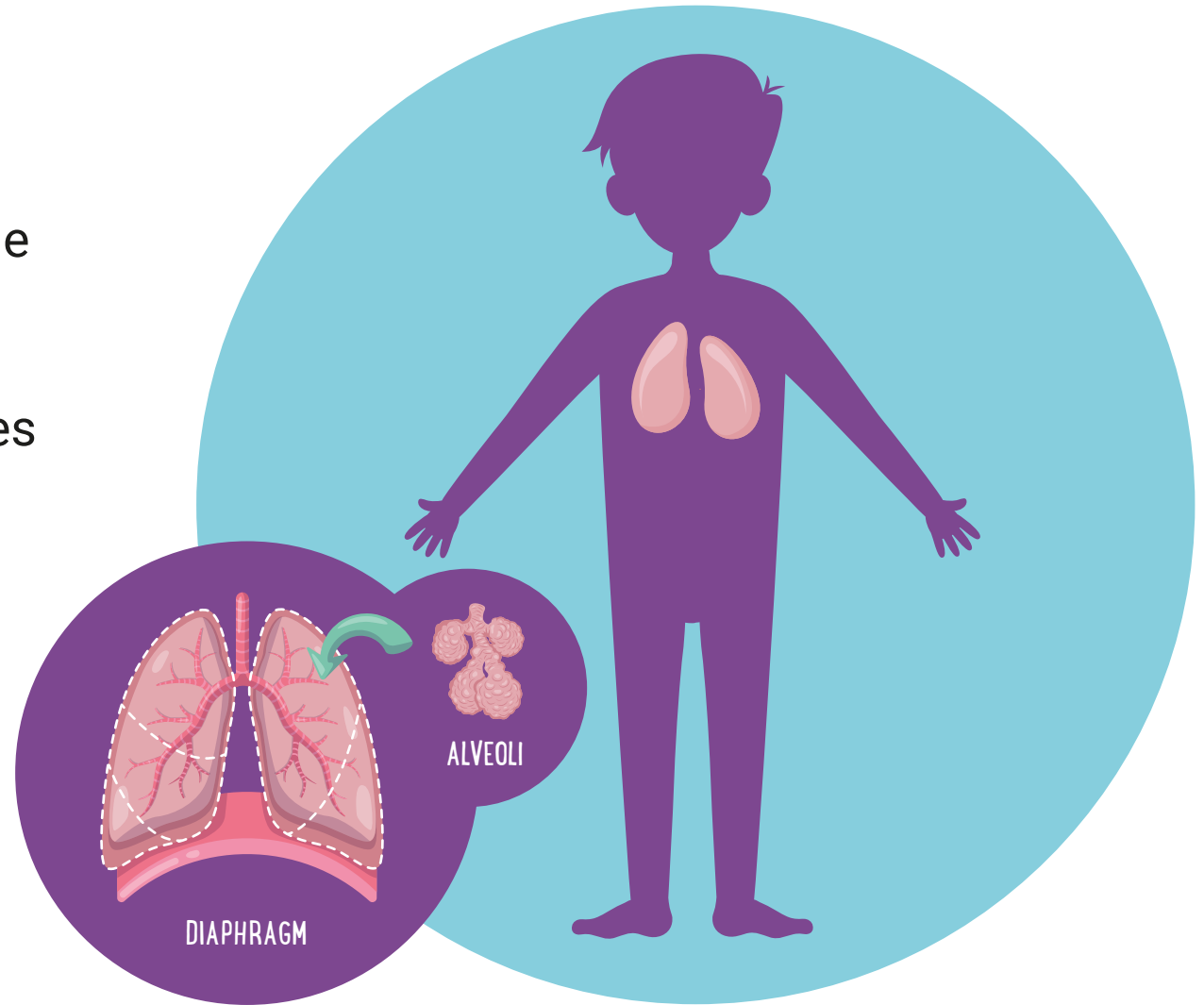
When you exhale (breathe out), your lungs take out the carbon dioxide in your bloodstream and release it back into the air.



Where are the Lungs?

Your lungs can be found beneath your ribs - on either side of the sternum inside your chest.

The alveoli at the end of your bronchioles are like lots of tiny balloons. If you were to spread them out, yours could cover the surface of a tennis court!



Did you know?

It's a party every day!

If all your exhales were put together, they could fill 900 big balloons every day! Hip hip hooray!

Top Tip:

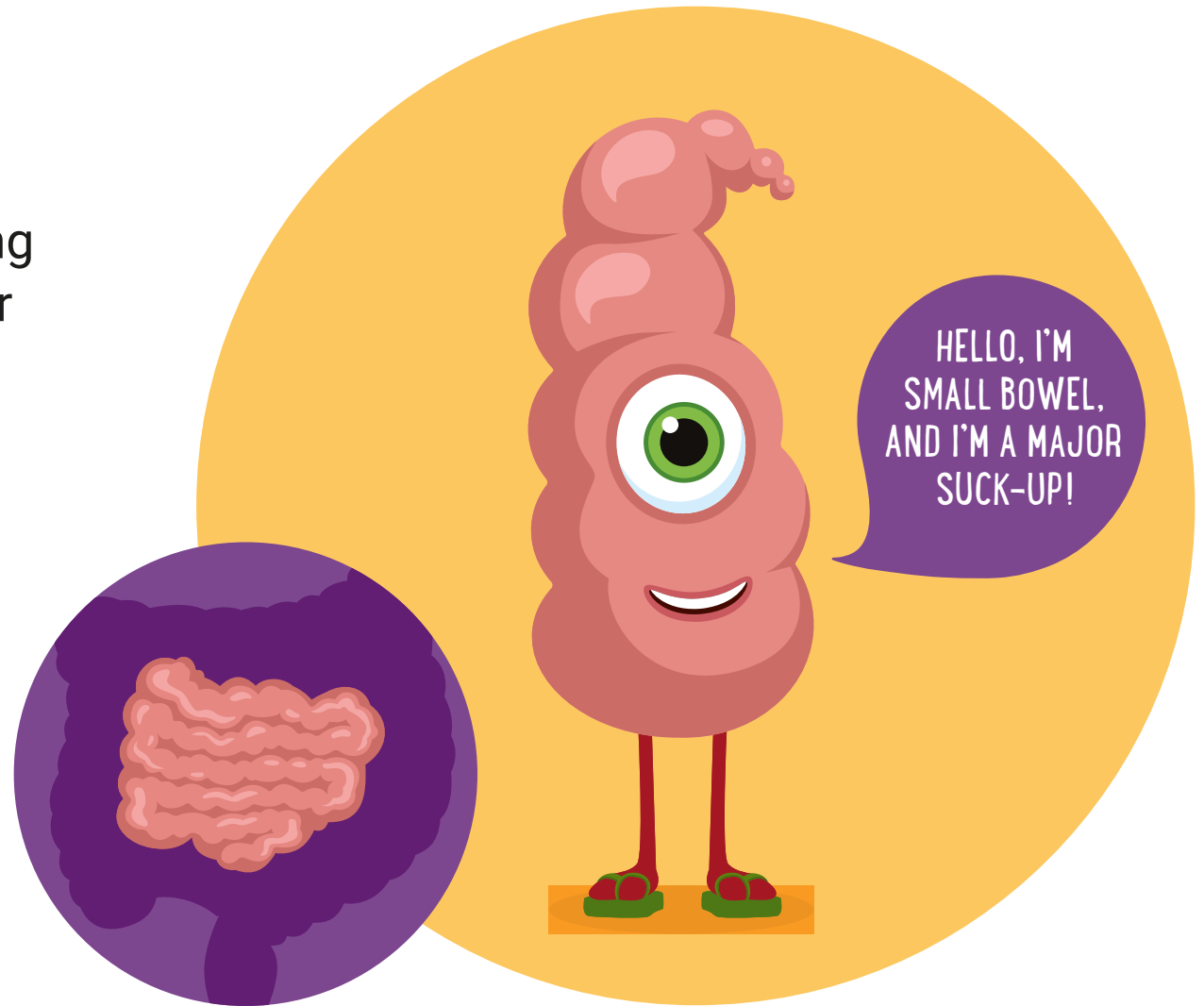
Enlarge your lung's capacity by exercising regularly, and pause to breathe really deeply for a few minutes every day.



Meet Small Bowel!

Also known as your small intestine, this mighty organ isn't small at all. Measuring from one end to the other, it's about four times as tall as you are!

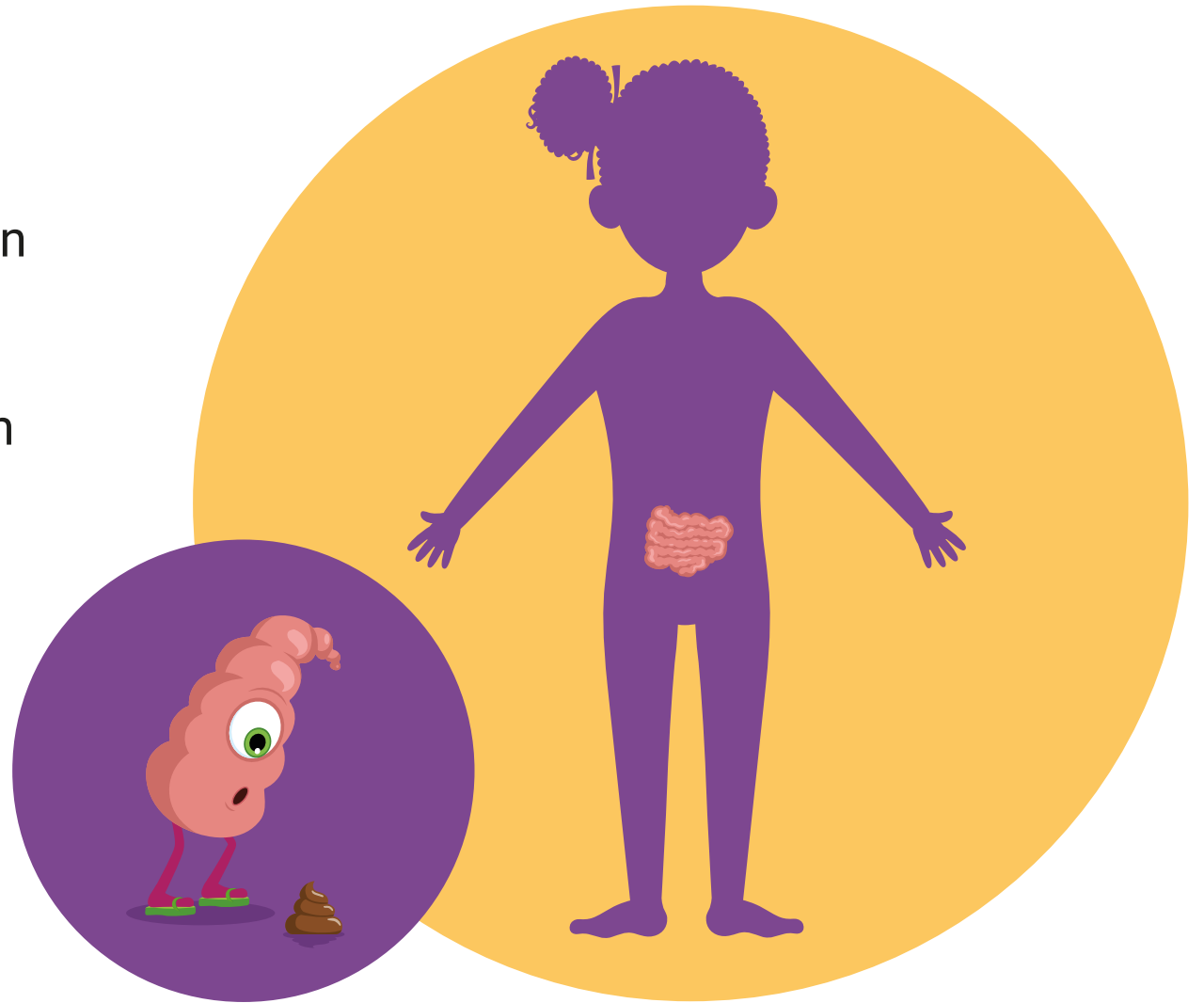
Small Bowel carries food from your stomach to your large intestine, sucking up (or absorbing) important nutrients along the way.



Where is Small Bowel?

Small Bowel can be found in your gastrointestinal tract, which lies between the stomach and large intestine.

It needs to be really long to have enough space and time to absorb the nutrients from everything you eat and drink and then comes out as poop!



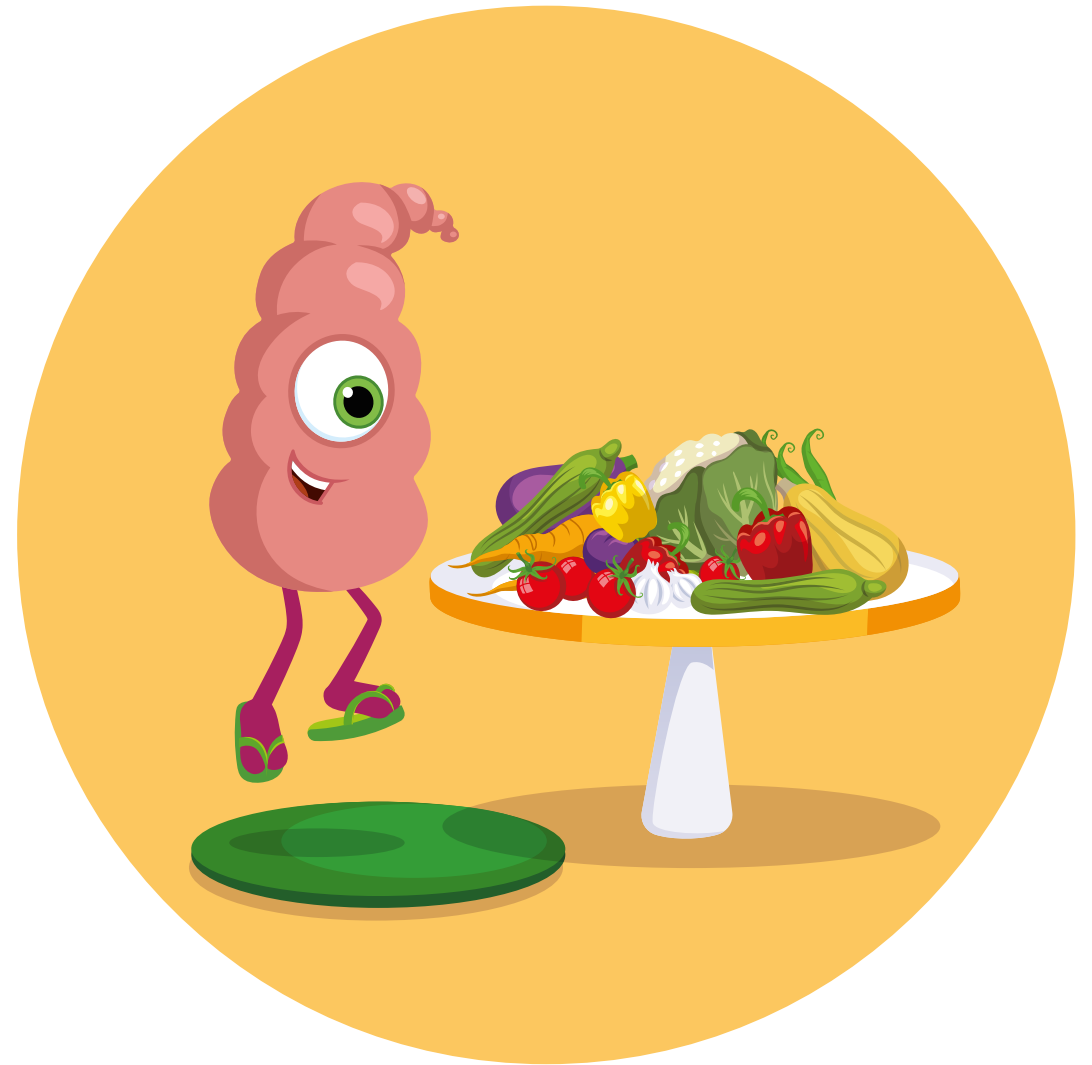
Did you know?

Your gut feel is real!

Your gut has more neurotransmitters than the brain. These are nerves that affect how you feel. It also contains most of your serotonin (which is the hormone that makes you feel happy and that helps you to sleep well).

Top Tip:

If you want to feel better and sleep better, keep your small bowel smiling! Eat healthy meals packed with nutrients, fibre and fresh ingredients, and drink lots of water too!



Meet Pancreas!

Say hello to Pancreas—your most loyal (and laid-back) supporter.

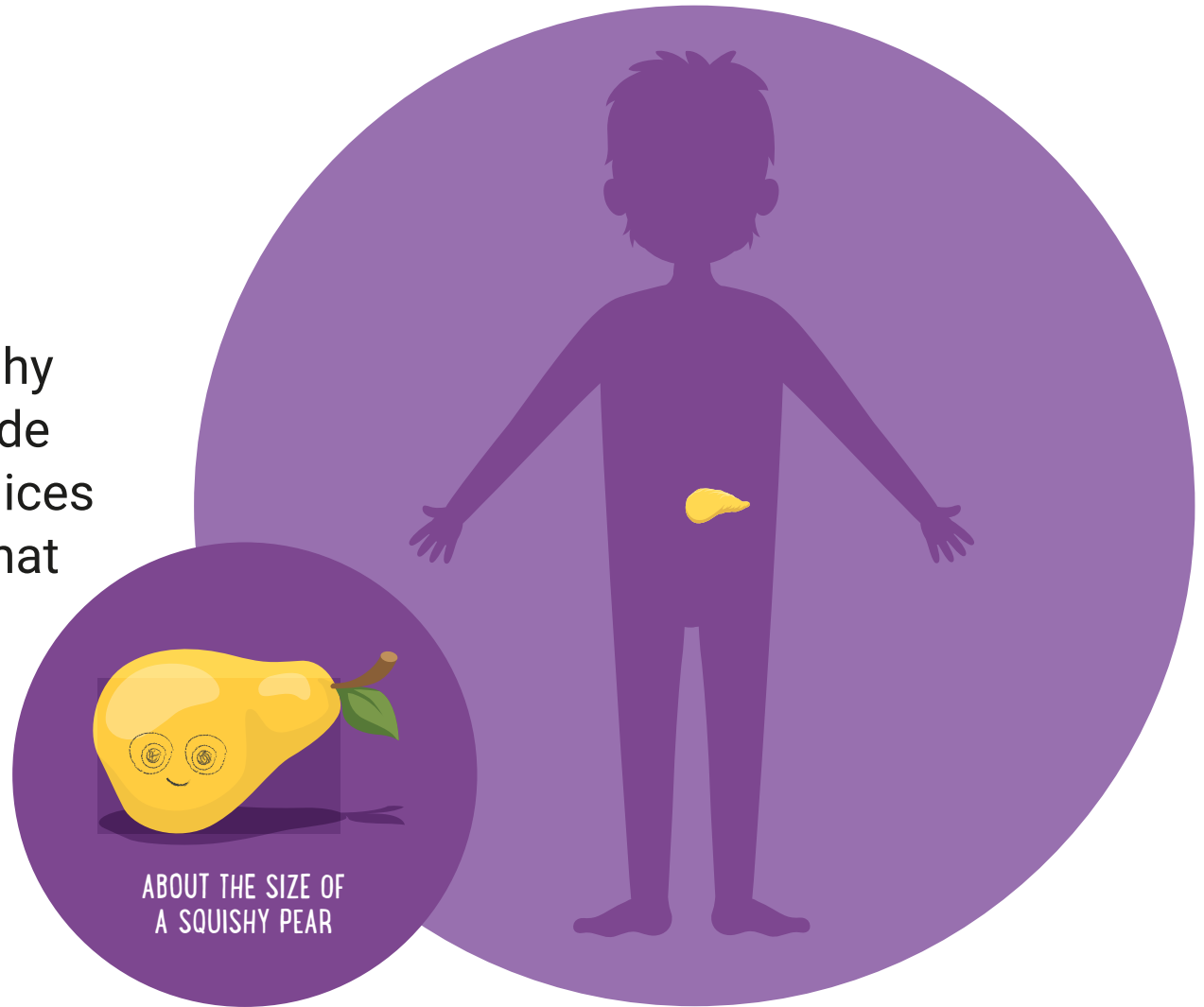
This super shy superhero has really got your back —producing essential digestive juices and making sure your blood sugar levels are stable so that you have energy throughout the day.



Where is Pancreas?

Pancreas loves to lay low and is hiding just behind your stomach.

Small, flat, and about the size of a squishy pear, this mighty organ works side-by-side with Small Bowel—making pancreatic juices called enzymes and other substances that help to break down your food so that it can be properly digested.



Did you know?

So much more than before...

In the past 300 years, the average person's intake of sugar has risen from almost 2kg of sugar a year to almost 100kg! That's fifty times more sugar for poor Pancreas to process!

Top Tip:

Please don't eat too many sugary, refined foods—they make your pancreas work too hard, and then it might just quit!

PLEASE DON'T
EAT TOO MANY
SUGARY, REFINED
FOODS, THEY MAKE
MY JOB SO MUCH
HARDER!



Meet Liver!

Say hello to the real multi-tasker sitting in your middle...

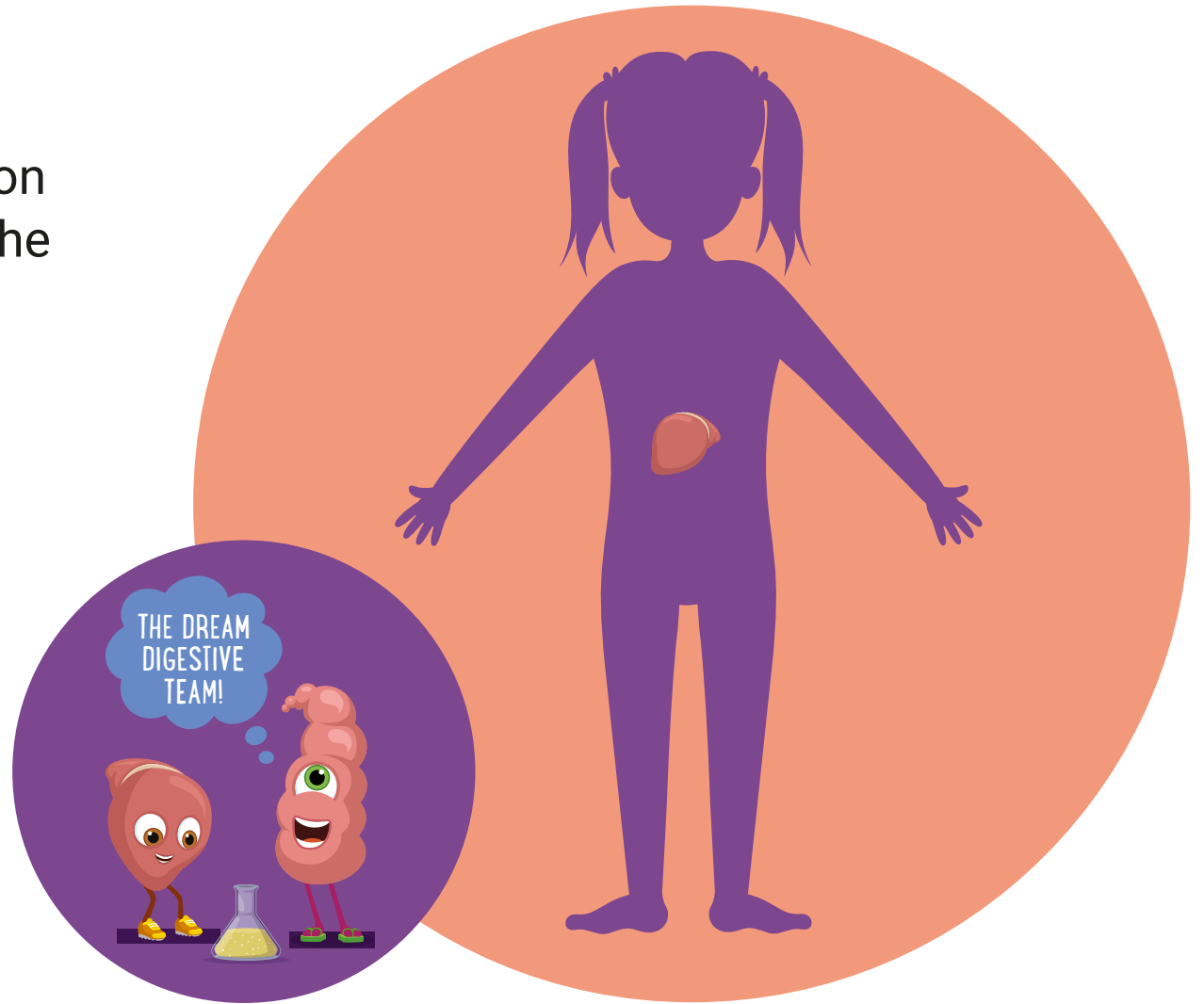
This mighty organ is the heaviest organ inside your body and one of the busiest: with over 500 jobs to do.



Where is Liver?

If you place a hand just under your ribs on the right side of your body, it will cover the space your liver lives in.

Liver cleans your blood, builds up your energy stores, helps your kidneys slow down and encourages your bowels to speed up.



Did you know?

It can grow back!

Just a quarter of your liver can 're-grow' to its original size (and function just as well) within a few weeks!

Top Tip:

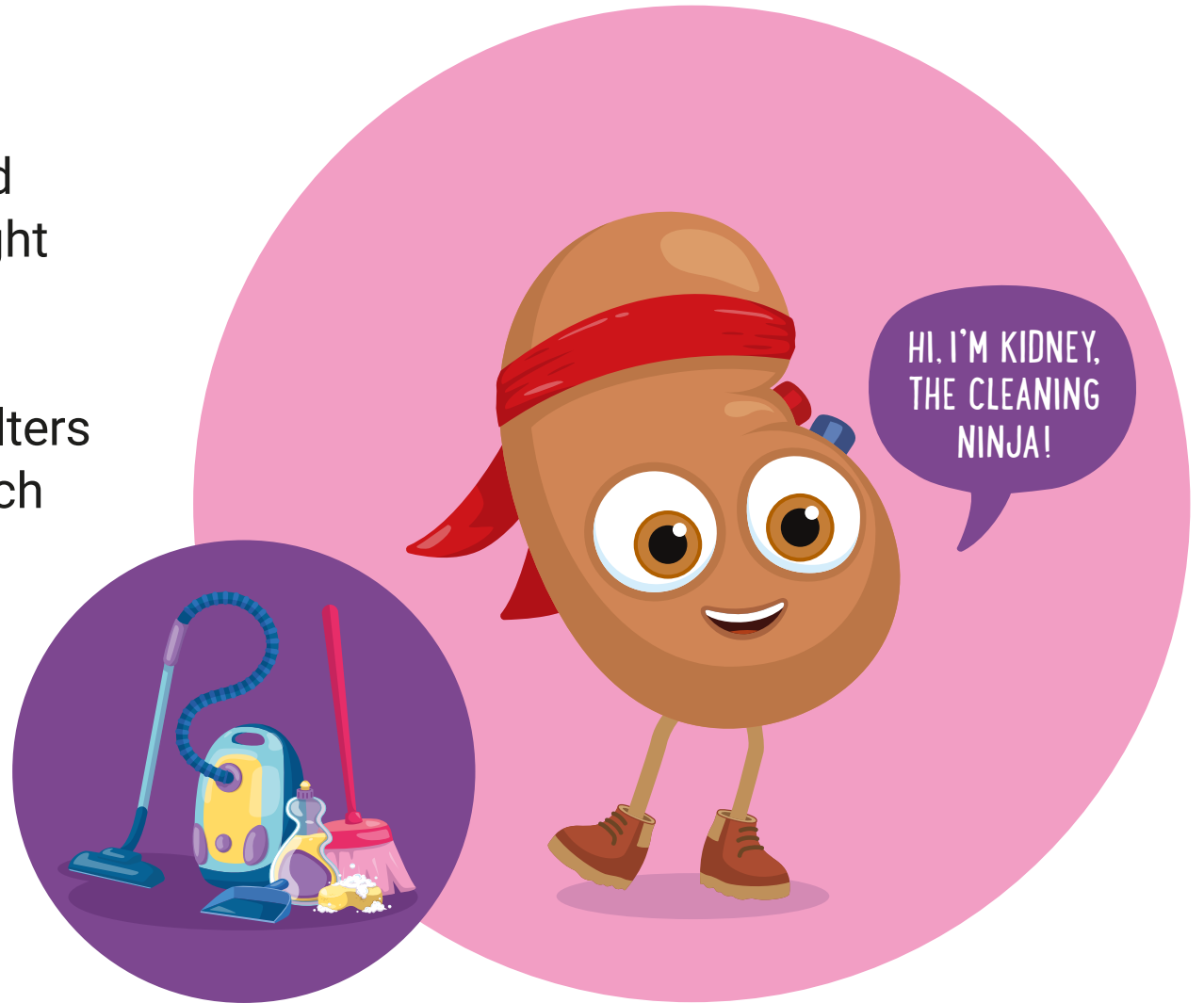
To keep your liver feeling great, make sure you get enough Vitamin D (from sunshine) and eat lots of fruit and veggies.



Meet Kidney!

You have two of these little legends, and together, they kick all the toxic waste right out of your bloodstream.

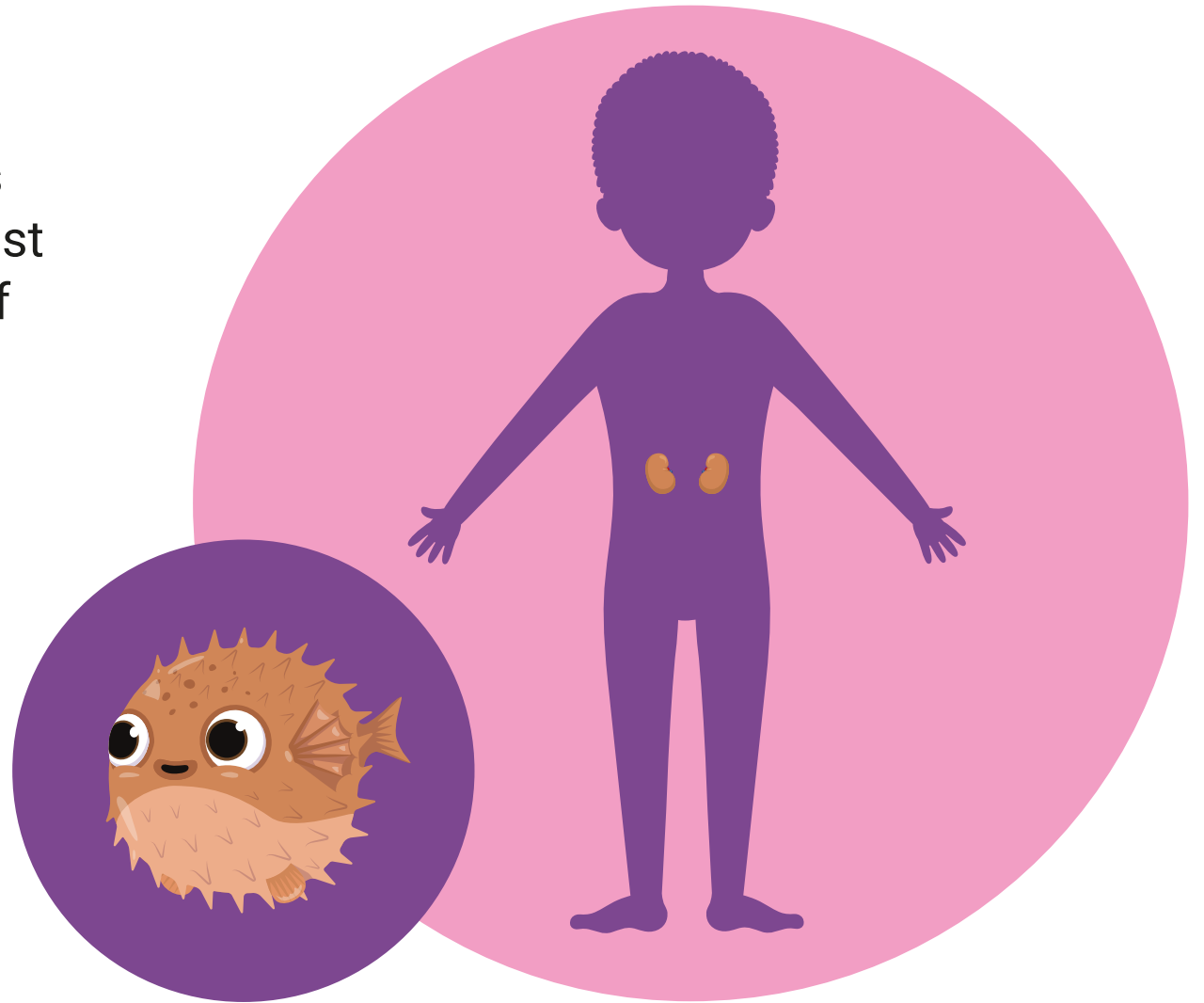
Inside each one is about a million little filters called nephrons. Like tiny nets, they catch all the stuff in your blood that you don't need or want floating around.



Where is Kidney?

Shaped like beans, each of your kidneys is about the size of your fist. They are just below your rib cage, one on each side of your spine.

Apart from cleaning your blood, your kidneys also make sure you have just the right amount of water in your body. Otherwise, you'd swell up like a puffer fish or shrivel up like a prune!



Did you know?

If you didn't pee – you'd die!

Once all the poisonous waste has been filtered from your bloodstream, your kidneys kick it out into the urine collecting in your bladder. We each pee out enough urine every year to fill about 8 baths!

Top Tip:

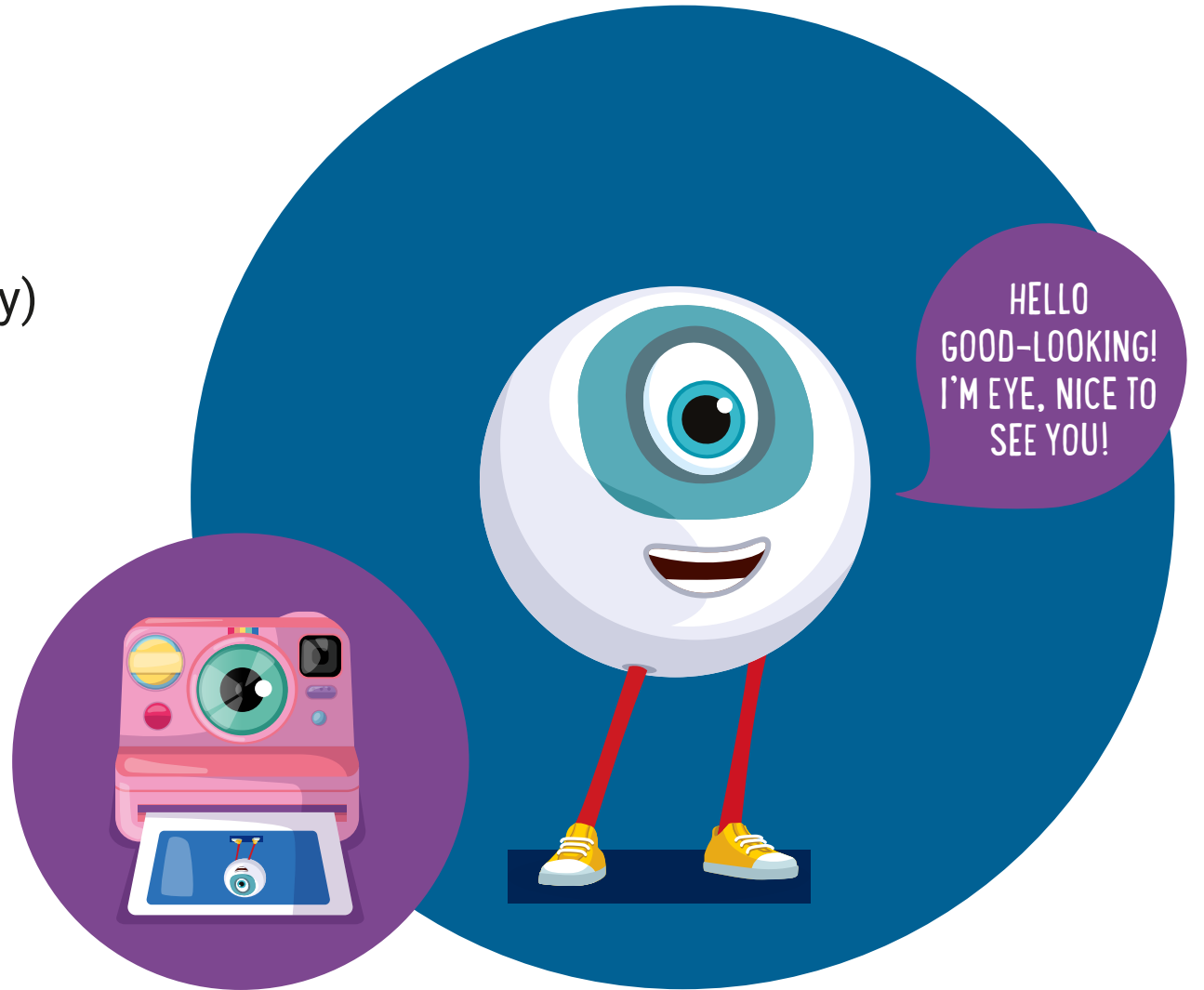
Be kind to your kidneys by drinking lots of water (about 6 cups a day) and taking lots of loo breaks!



Meet Eye!

Introducing the ultimate observer, Eye.

Like a super-advanced (and very slippery) camera, your eyes are made up of more than two million different parts that work together so that you can see!



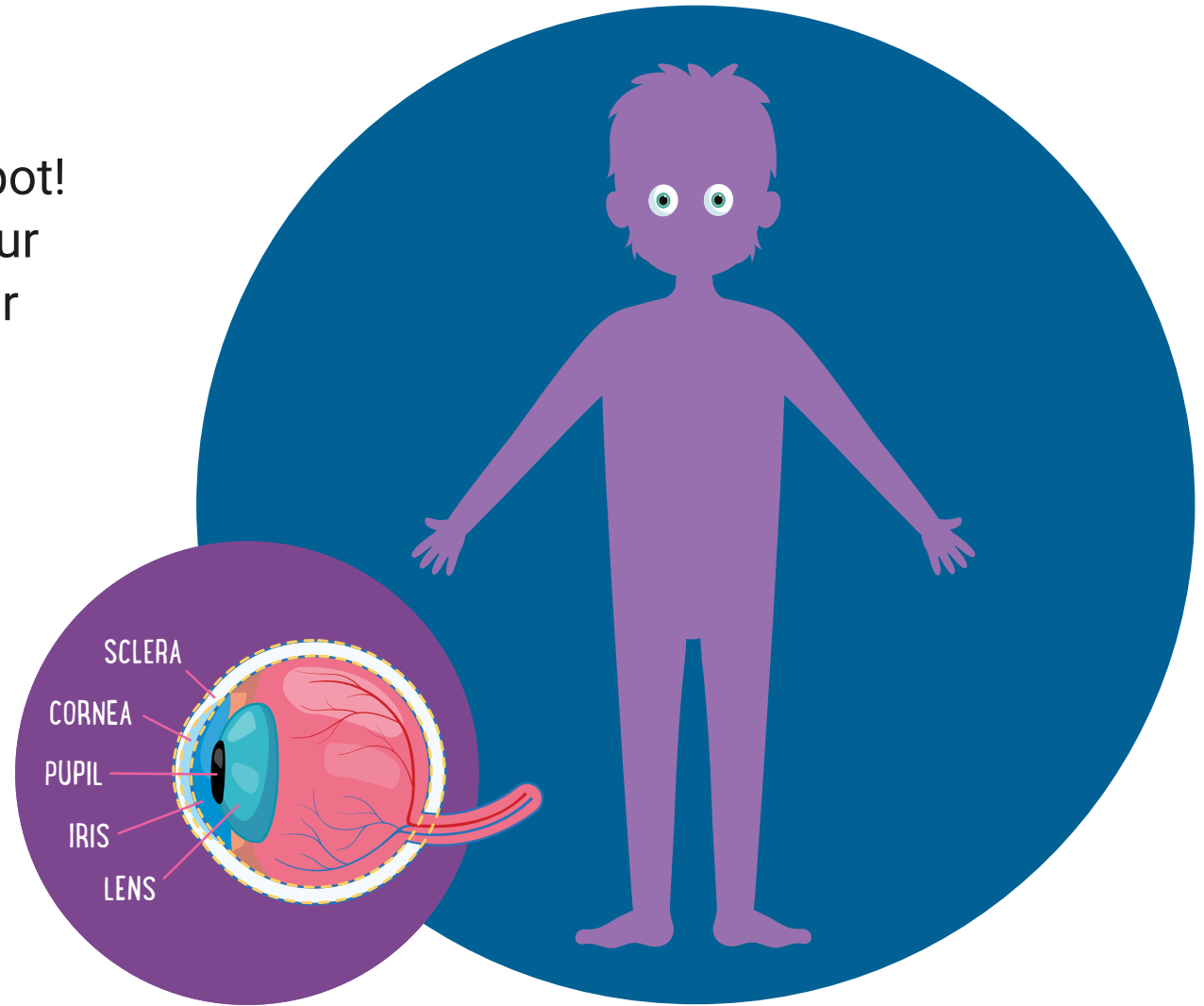
Where is Eye?

This is one organ that's really easy to spot! Right there in the middle of our faces, our eyes peep through two bony holes in our skulls (called orbits).

The part of your eye that you can see is only about a sixth of your actual eye.

Did you know?

The eye is never transplanted whole, it's only the Cornea and the Sclera - that's the clear front section of the eye and the white part.



Did you know?

Something's fishy...

A shark's eye is really similar to human eyes—so similar that shark corneas are sometimes used in human eye surgery!

Top Tip:

Want to give your eyes a healthy workout? Take a break from screens and focus on an object far away, then pick another thing to focus on that's really close. Do this every 20 minutes if you can!



Your organs are truly mighty, but do you know...

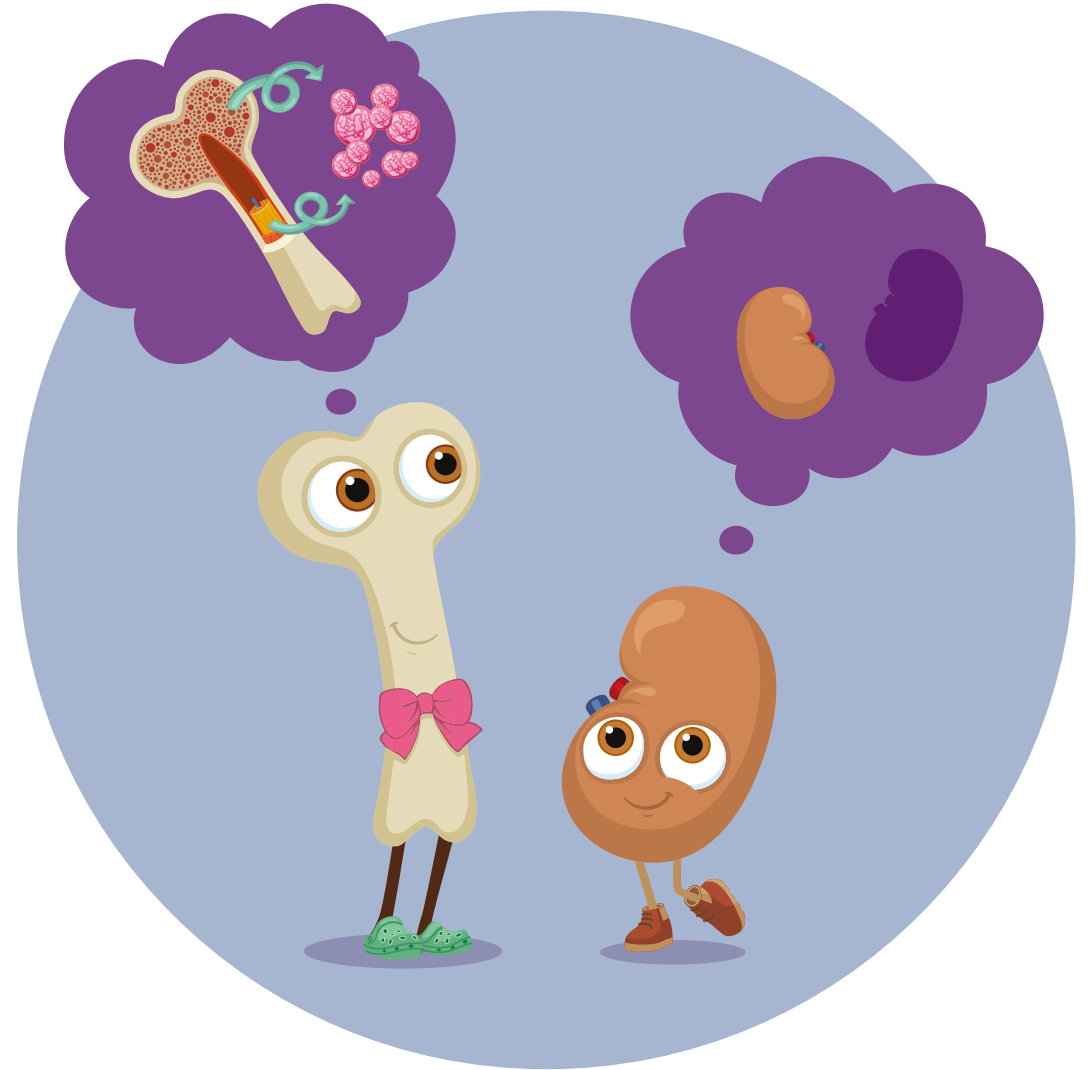


What is a Living Donor?

Anyone can choose to donate their mighty organs after they die, but some things can be donated while still alive. Living Donors are usually grown-ups. They can donate...

A kidney: The most common organ donated by Living Donors—usually because someone the donor knows and matches with really needs one.

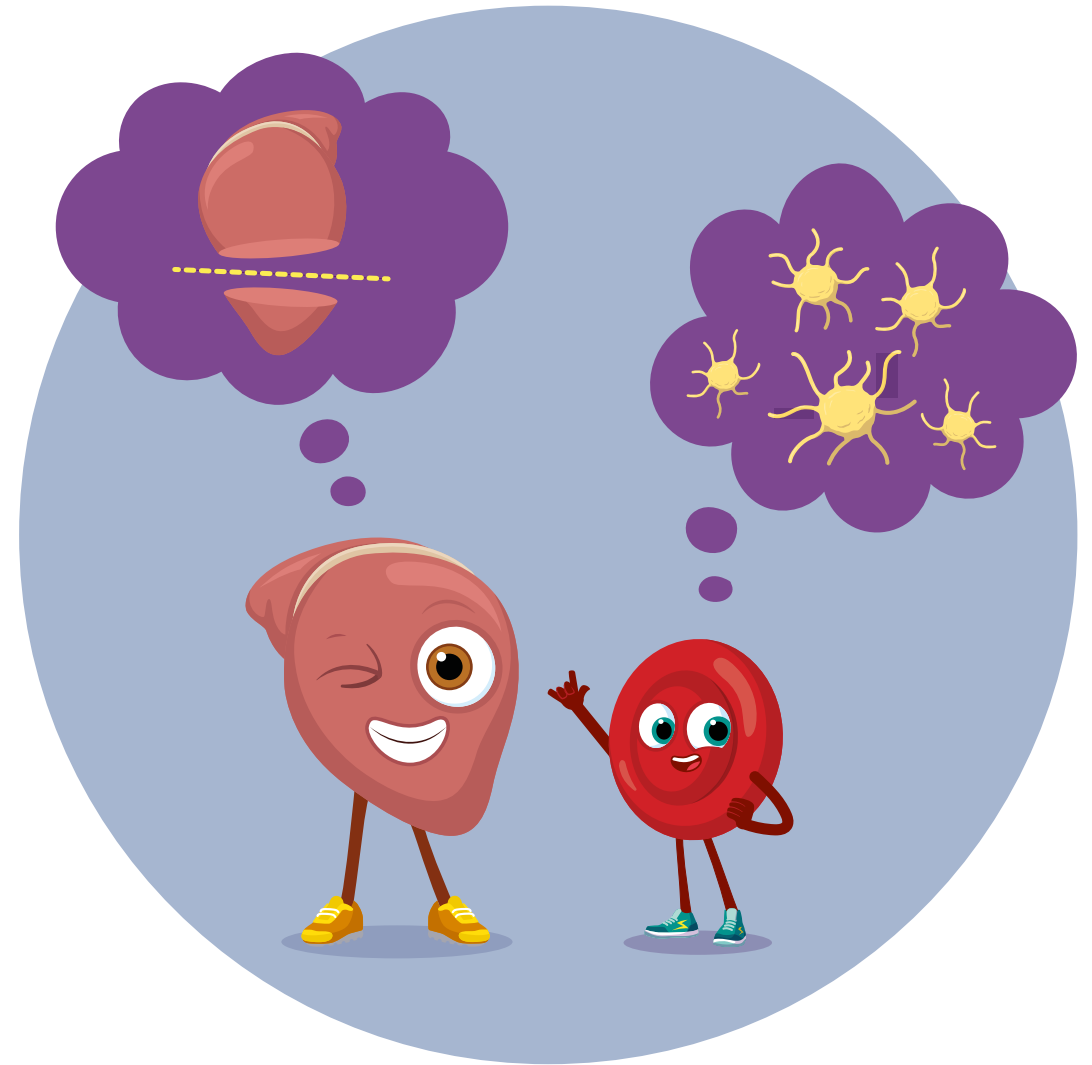
Bone marrow: If a living person wants to donate their bone marrow, there is a special donation register they can sign up to.



What else can Living Donors donate?

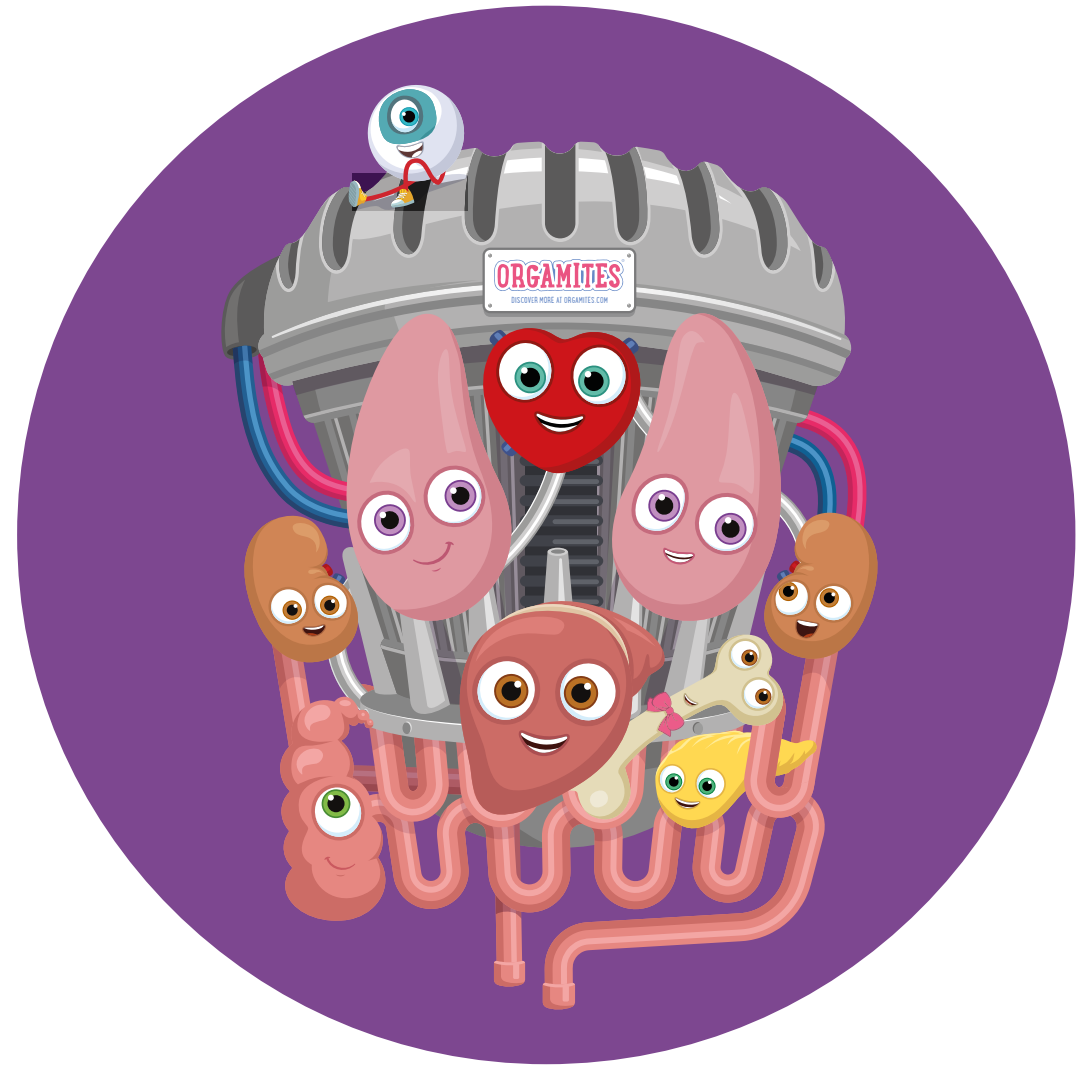
Liver: With its amazing ability to re-grow, a part of someone's healthy liver can be donated. Both the organ donor and recipient will soon have a healthy, whole liver!

Blood and plasma: Giving blood and plasma is easy and safe. Most people aged between 17 and 65 can donate blood or plasma. Plasma is used to make lots of different medicines to help sick people.



Let's do a quick recap!

1. Can you name your vital organs?
2. Can you name your mighty organs?
3. Why might someone choose to donate their organs?
4. Why might someone choose not to donate their organs?
5. Why is it important to talk with your family about your choices around organ donation?



So what have we learnt today?




We are all made up of some pretty mighty organs!

We're all the same inside!

And in the end, it's what's on the inside that really counts!



What next?

-  1. Know Your Mighty Parts (off by heart)
-  2. Know Your Options
-  3. Share Your Choice
-  4. Take The Mighty Pledge
-  5. Be Your Mighty Self!





ORGAMITES®

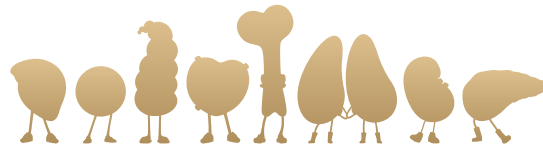
MIGHTY PLEDGE

Our world is precious, and fragile too
I commit to look after it and take the long view...
I'll try to recycle and put litter in bins,
I'll upcycle too and reuse my things.

Every person is special, whether old or young
We all just want love so I honour each one.
I'll treat all the people I meet with respect every day
And be as kind as can be in my own unique way.

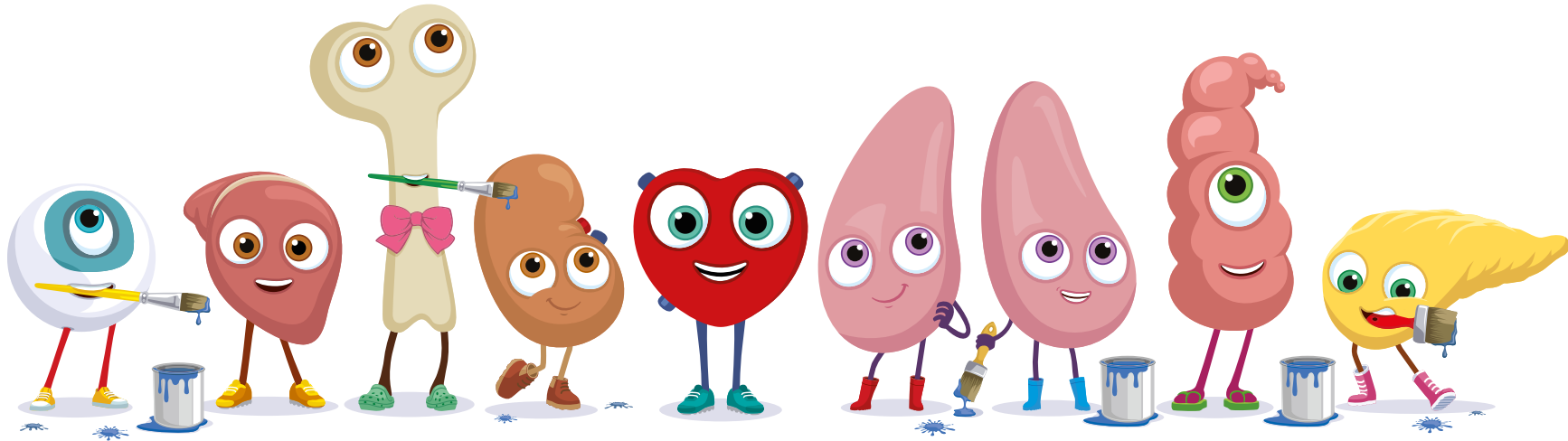
My body is mine and it's perfect for me
I'm thankful for it, I'm as proud as can be.
I pledge to look after it and to be kind to each part
From my head to my toes, from my kidneys to heart.

And if one day, these parts I don't need,
You can pass them along as my final good deed.
After all, it's not our looks or clever tricks that astound...
We're all beautiful and precious -
it's what's inside that counts!



ALWAYS REMEMBER

IT'S WHAT'S INSIDE THAT COUNTS!





All Good Co.

A COMMUNITY INTEREST COMPANY

Do more good with AllGoodCo.org